

**In re Application of
diGirolamo et al.**

Filed: November 4, 2003

For: **STUD SPACER WITH INTERLOCKING PROJECTIONS**

PATENT PENDING

Examiner: Hunter M. Dreidame

Group Art Unit: 3635

Confirmation No.:5075

Mail Stop Amendment
Commissioner for Patents
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May 8, 2007

Date _____

Kathy L. McDermott

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This paper is being filed in response to the Office Action mailed February 8, 2007. Filed concurrently with this response is an Electronic Funds Transfer in the amount of \$225 to cover the fees associated with additional claims 26 through 34. If any additional fees or charges are required, the Commissioner is hereby authorized to charge them to Deposit Account 18-1167.

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A stud spacer for extending between two studs comprising:
 - a. a main member adapted to extend between the two studs;
 - b. the main member including first and second end portions;
 - c. a projection extending from each end portion; ~~and~~
 - d. wherein the main member and the projections form the stud spacer; and
 - [[d]] e. wherein the projections of the main member are configured to interlock
with similar projections of other ~~main members-stud spacers~~.
2. (Original) The stud spacer of claim 1 wherein each projection includes a locking surface, an opening, a deflector disposed adjacent the opening, and a stop.
3. (Original) The stud spacer of claim 2 wherein when two projections are interlocked, the locking surface of one projection engages the stop of the other projection.
4. (Original) The stud spacer of claim 1 wherein each projection is elongated and when connected to a similar projection at least partially overlies or underlies the similar projection.
5. (Previously Presented) The stud spacer of claim 1 wherein each of the two projections includes a deflectable terminal end and an opening.
6. (Original) The stud spacer of claim 1 wherein each projection includes a terminal end portion, a locking tab disposed on the terminal end portion, a deflector disposed inwardly of the locking tab; an opening formed in the projection adjacent the deflector; and a stop disposed inwardly of the opening.
7. (Currently Amended) A stud spacer assembly for extending between a series of studs, comprising:
 - a. at least first and second stud spacers wherein each stud spacer extends between a pair of studs;

- b. said first stud spacer including a first projection and said second stud spacer including a second projection;
- c. said first and second projections adapted to interlock so as to connect the first and second stud spacers together; and
- d. wherein each projection includes a locking surface and a stop and wherein when interlocked, the locking surface of the first projection is engaged with the stop of the second projection and the locking surface of the second projection is engaged with the stop of the first projection.

8. (Original) The stud spacer assembly of claim 7 wherein when connected the first and second projections overlie each other.

9. (Original) The stud spacer assembly of claim 8 wherein each projection includes an opening and wherein when connected the first projection extends through the opening of the second projection and the second projection extends through the opening of the first projection.

10. (Original) The stud spacer assembly of claim 9 wherein at least a portion of each projection is at least slightly yieldable such that a portion of each projection can slightly flex during the course of interconnecting the projections.

11. (Original) The stud spacer assembly of claim 7 wherein each projection includes an opening and a deflector and wherein the locking surface of each projection is formed on a terminal end portion of the projection and wherein when connected the terminal end portion of the first projection projects through the opening in the second projection and the terminal end portion of the second projection projects through the opening in the first projection.

12. (Original) The stud spacer assembly of claim 11 wherein the deflector of the first projection deflects the terminal end of the second projection through the opening of the first projection and wherein the deflector of the second projection deflects the terminal end of the first projection through the opening in the second projection.

13. (Original) The stud spacer assembly of claim 7 wherein the locking surface includes a tab and the stop includes a tab receiving opening and wherein when the first and second projections are interconnected the first projection is extended over a portion of the second projection and a portion of the first projection is inserted through the opening in the second projection such that the locking tab of the first projection seats within the tab receiving opening formed in the second projection and wherein the second projection is extended underneath a portion of the first projection and a portion of the second projection is inserted through the opening in the first projection wherein the locking tab of the second projection seats within the tab receiving opening of the first projection.

14. (Original) The stud spacer of assembly of claim 13 wherein each projection includes a deflector disposed adjacent the tab receiving opening and wherein the deflector on the first projection deflects a portion of the second projection upwardly through the opening in the first projection, and wherein the deflector in the second projection deflects a portion of the first projection downwardly through the opening in the second projection.

15. (Original) The stud spacer assembly of claim 7 wherein the locking surface of each projection includes a tab and wherein the stop of each projection includes a tab receiving opening and when the projections are connected the respective tabs are seated within the tab receiving openings.

16. (Currently Amended) A wall structure, comprising:
- a. a series of spaced apart studs with each stud having an opening formed therein;
 - b. a series of stud spacers extending between respective studs;
 - c. each stud spacer including first and second projections that extend from opposite ends of the stud spacer;

- d. said first and second projections of each stud spacer adapted to connect to first and second projections of other stud spacers so as to interconnect the stud spacers of the wall structure; and
- e. each ~~projections~~ projection including a locking surface and a locking stop and wherein when interconnected the locking surface of the first projection is engaged with the locking stop of the second projection and the locking surface of the second projection is engaged with the locking stop of the first projection.

17. (Original) The wall structure of claim 16 wherein when connected the respective projections at least partially overlie one another.

18. (Original) The wall structure of claim 17 wherein the first projection includes a terminal end portion and an opening and the second projection includes a terminal end and an opening and wherein the terminal end portions of the respective projections are projected through the openings within the projections when the projections are interconnected.

19. (Currently Amended) A method of interconnecting a first stud spacer with a second stud spacer extending between studs in a wall structure wherein the first stud spacer includes a first projection and the second stud spacer includes a second projection, comprising the steps of:

- a. projecting the first and second projections of the first and second stud spacers through an opening in a stud;

[[a]]b. projecting the first projection through an opening in the second projection and engaging a locking surface associated with the first projection with a stop associated with the second projection; and

[[b]]c. projecting the second projection through an opening in the first projection and engaging a locking surface associated with the second projection with a stop associated with the first projection.

20. (Original) The method of claim 19 including engaging the first projection with a deflector associated with the second projection and deflecting the first projection through the opening in the second projection, and engaging the second projection with a deflector associated with the first projection and deflecting the second projection through the opening in the first projection.

21. (Original) The method of claim 20 including at least slightly bending a portion of each projection as the two projections are interconnected.

22. (Original) The method of claim 21 wherein the projections are at least slightly flexed in response to engaging the respective deflectors carried by the projections.

23. (Original) The method of claim 19 wherein the locking surfaces comprise locking tabs and wherein the stops comprises locking seats and wherein when the projections are interconnected the locking tabs of the respective projections are seated within the locking seats of the projections.

24. (Original) The method of claim 19 including contacting a terminal end of the first projection with a deflector disposed on the second projection and deflecting the terminal end of the first projection downwardly through the opening in the second projection; and contacting a terminal end portion of the second projection with a deflector on the first projection and deflecting the terminal end of the second projection upwardly through the opening in the first projection.

25. (Original) The method of claim 24 wherein the locking tabs carried by the first and second projections snap into the tab receiving openings once the terminal ends of the respective projections have been inserted through the openings in the respective projections.

26. (New) The stud spacer of claim 1 including one or more flanges disposed on either end portion of the main member for connecting to one of the two studs.

27. (New) The stud spacer of claim 26 including at least two flanges, one flange disposed on the first end portion of the main member and one flange disposed on the second end of the main member; each flange extending generally normal relative to the main member.

28. (New) The stud spacer of claim 1 including a pair of spaced apart flanges disposed on the first end portion of the main member for connecting to one of the two studs; the spaced apart flanges being angled with respect to the main member such that the flanges extend generally normal to the main member; and wherein the projection extending from the first end portion of the main member extends between the pair of spaced apart flanges.

29. (New) The stud spacer assembly of claim 7 wherein each stud spacer includes opposed ends, and wherein each stud spacer includes one or more flanges disposed on one or both end portions of the stud spacer for connecting the stud spacer to one or more studs.

30. (New) The stud spacer assembly of claim 29 wherein each stud spacer includes a pair of spaced apart flanges disposed on each end portion thereof for connecting to one stud.

31. (New) The wall structure of claim 16 wherein each stud spacer includes one or more flanges disposed on opposite end portions for connecting each stud spacer to at least two spaced apart studs that form a part of the wall structure; and wherein each flange is connected to one stud such that the series of stud spacers that form a part of the wall structure are interconnected to the studs.

32. (New) The wall structure of claim 31 wherein each consecutive pair of studs of the wall structure are interconnected by a stud spacer, and wherein the stud spacer includes at least one flange disposed on opposite ends thereof, and wherein each flange is connected to one stud.

33. (New) The method of claim 19 including securing at least one of the first or second stud spacers to the stud.

34. (New) The method of claim 33 wherein each of the stud spacers includes one or more flanges disposed on one or more end portions thereof, and wherein the method includes fastening the one or more flanges of at least one of the stud spacers to the stud thereby interconnecting the stud with at least one of the stud spacers.

REMARKS

The comments of the Examiner as set forth in the office action of February 8, 2007 have been carefully studied and reviewed. In this response claims 1, 7, 16 and 19 have been amended, and new claims 26 through 34 have been added.

Claim 1 has been amended to address the concerns raised by the Patent Office on page 2 of the office action.

Claims 1-25 stand rejected as being anticipated by U.S. Patent No. 4,912,894 to Platt. For the reasons discussed below, it is respectfully urged that claims 1-25 are not anticipated by Platt.

The first step in an anticipation analysis is claim construction, and the second step involves comparing the properly construed claim to the prior art. *Helifix Ltd. v. Vlok-Lok, Ltd.*, 208 F.3d 1339 (Fed. Cir. 2000). In construing a claim term the Patent Office must give the claim term its plain and ordinary meaning unless the term has been specifically defined by the applicant, or the plain meaning is inconsistent with the specification. See MPEP §2111. This is the most fundamental cannon of claim construction. It is true that in giving a claim term its plain and ordinary meaning, the Examiner can give the claim term its broadest reasonable interpretation. *In re Baker Hughes, Inc.*, 215 F.3d 1297 (Fed. Cir. 2000). However, the broadest reasonable interpretation comes with a number of caveats. First, as set forth in MPEP §2111, the words of a claim must be given their plain and ordinary meaning unless such is inconsistent with the specification. In addition, the interpretation must be "reasonable" and must be consistent with the specification and in harmony with how a person of ordinary skill in the art would construe the term in light of the specification. *In re Hyatt*, 211 F.3d 1367 (Fed. Cir. 2000).

It is clear that there is a dispute between the Patent Office and the Applicant concerning the proper construction of two terms, "stud spacer" and "stud."

First, with respect to the claim term "stud spacer," this is a term of art. It is commonly and extensively used in the construction industry, especially in light steel framing. The plain and ordinary meaning of "stud spacer" is the same meaning that it has as a term of art. The plain and ordinary meaning of "stud spacer" is:

a member used in a wall that is interconnected between successive studs and which spaces the studs, and in some cases, structurally reinforces the stud and the wall.

The Patent Office is referred to four exemplary U.S. patents: U.S. Patent No. 6,701,689; U.S. Patent No. 6,021,618; U.S. Patent No. 5,274,973; and U.S. Patent No. 4,625,415. All four patents use the term "stud spacer" as a term of art, and all four patents use the term "stud spacer" in its plain and ordinary sense to mean a member used in a wall that interconnects successive studs, and which spaces the studs and in some cases structurally reinforces the studs and the wall.

There is no evidence of record to suggest that this is not the plain and ordinary meaning of "stud spacer," or that the term "stud spacer" has any other plain or ordinary meaning. The Patent Office has not explicitly construed this term. All that is known is that the Patent Office's construction is so broad that it encompasses structures in a ceiling. If the Patent Office disagrees with Applicant's construction, it is respectfully urged to set forth an explicit construction for the term "stud spacer" and to explain the basis for such construction.

As noted above, there is also a dispute as to the meaning of the term "stud." The plain and ordinary meaning of "stud" is an upright post member in a wall for supporting drywall, wall boarding or similar material. The dictionary definition of "stud" is:

An upright post in the framework of a wall for supporting sheets of lathe, wall board, or similar material

Yahoo!Education, <http://education.yahoo.com/reference/dictionary/entry/stud> (Ex. A).

This plain and ordinary meaning of "stud" is consistent with the specification and is in harmony with how a person of ordinary skill in the art would construe the term. The Patent

Office has not explicitly construed this term either. Again, all that is known is that whatever the construction it is so broad that it encompasses horizontal structures in a ceiling. If the Patent Office disagrees with this construction, it is respectfully urged to set forth an explicit construction of "stud" and explain the basis for the construction.

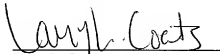
In the case of both a "stud spacer" and a "stud," these components are found in a wall. They are not components found in a ceiling structure as in Platt. Platt discloses a ceiling grid structure having cross tees interlocked to main beams. This structure functions to support ceiling tiles on flanges formed on the cross tees and the main beams. There is no structure in Platt that can reasonably be deemed a stud or a stud spacer.

Anticipation requires that Platt disclose each and every element and limitation of the claim. Since Platt does not disclose a stud spacer, nor a stud, it is impossible for Platt to anticipate the claims.

For the foregoing reasons, it is respectfully urged that the present application is in condition for allowance and allowance is respectfully requested.

Respectfully submitted,

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A handwritten signature in dark ink, appearing to read "Larry L. Coats", is written over a horizontal line.

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stud >

stud¹ (stŭd) [KEY](#)**NOUN:**

1. An upright post in the framework of a wall for supporting sheets of lath, wallboard, or similar material.
2. A small knob, nail head, or rivet fixed in and slightly projecting from a surface.
3.
 - a. A small ornamental button mounted on a short post for insertion through an eyelet, as on a dress shirt.
 - b. A buttonlike earring mounted on a slender post, as of gold or steel, for wearing in a pierced earlobe.
4.
 - a. Any of various protruding pins or pegs in machinery, used mainly as a support or pivot.
 - b. One of a number of small metal cleats embedded in a snow tire to increase traction on slippery or snowy roads.
5. A metal crosspiece used as a brace in a link, as in a chain cable.

Reference Factoid Quiz

How many pints in a liter?

- ☐ 1.6
- ☐ 2.1
- ☐ 2.8
- ☐ 3.3
- ☐ 3.8

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**EXHIBIT**

A

TRANSITIVE VERB:**stud-ded , stud-ding , studs**

1. To provide with or construct with studs or a stud.
2. To set with studs or a stud: *stud a bracelet with rubies.*
3. To be scattered over: *Daisies studded the meadow.*

ETYMOLOGY:

Middle English *stode*, from Old English *studu*; see *stā-* in Indo-European roots

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